



The Solutions Network

Rochester, New York

Plug Into What's New

Skye Schell, Acting Director
Federal Energy Management Program
Policy, Planning and Leadership, Session 9
Wednesday Aug 9, 2004; 10:30 am – Noon



U.S. Department of Energy

Energy Efficiency and Renewable Energy

*Bringing you a prosperous future where energy is
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As the largest energy consumer in the United States, the federal government has both a tremendous opportunity and a clear responsibility to lead by example with smart energy management. By promoting energy efficiency and the use of renewable energy resources at federal sites, the Federal Energy Management Program helps agencies save energy, save taxpayer dollars, and demonstrate leadership with responsible, cleaner energy choices.

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New Construction / Retrofits ▶

Learn about how to design high performance buildings that save energy, save money, enhance indoor environmental quality, and help preserve the environment.

Operations & Maintenance ▶

Learn how effective operations and maintenance can help you ensure reliability, safety, and energy at relatively low cost.

Utility Management ▶

Find up to date information about energy markets, utility restructuring, renewable power purchasing, and load management opportunities that can help you manage costs, improve reliability, and reduce environmental impacts.



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Welcome to the Web site of FEMP's popular energy-efficiency purchasing recommendations. To access the product **energy efficiency recommendations**, interactive energy **cost calculators**, and other resources to help in the purchasing of energy-efficient products, please use the navigation to the left.



As the world's largest volume-buyer of energy-related products, the Federal government can reduce energy consumption and achieve enormous cost savings by purchasing energy-efficient products. Federal buyers are directed by FAR Part 23 and Executive Orders 13123 and 13221 to purchase products that are **ENERGY STAR**® labeled or products that are designated to be in the upper 25% of energy efficiency in their class as well as products with **low standby power**. FEMP's Buying Energy Efficient Products program helps Federal purchasers identify these types of highly efficient products.

Purchasing "green" products helps to reduce our impact on the environment. The Office of the Federal Environment Executive provides links to [green purchasing information](#).

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Utility Energy Services Contracts

Energy-Efficiency Incentive Programs

Super Energy Savings Performance Contracts (Super ESPCs)

If you're doing all you can to meet your agency's energy efficiency, water conservation, and renewable energy goals—but are frustrated by a lack of funds—then Super Energy Savings Performance Contracts (Super ESPCs) could be just what you're looking for.

ESPC projects worth \$1.7 billion have been implemented by 18 different federal agencies and departments in 46 states. The improvements achieved through ESPCs save 13.6 trillion Btu annually, equivalent to the energy consumed by 132,200 households or a city of a half million. These projects will save the government \$4.7 billion in energy costs. \$3.2 billion of the savings will be used to pay off project investment, leaving net savings to the government of \$1.5 billion. Download [ESPC Fact Sheet \(PDF 900 KB, 2 pp\)](#). [Download Acrobat Reader](#).

With Super ESPCs, energy and facility managers can improve their buildings and install new equipment with no up-front costs. Each Super ESPC project is designed to meet the specific needs of a facility and can include a wide range of energy- and cost-saving improvements, from energy-efficient lighting to heating and cooling systems. These contracts also allow agencies to obtain financing for newer technologies, such as geothermal heat pumps, photovoltaic systems, and biomass systems.

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[Proper O&M Procedures Pay Off with Long-Lasting Savings for Performance Contracting Projects](#)
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[Biomass Super ESPC Q&A](#)
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Energy-Efficiency Incentive Programs

Meetings of the Federal Utility Partnership Working Group

The Federal Utility Partnership Working Group meets twice per year to share success stories, information on FEMP programs and products, and other FUPWG business.

Find out about both [upcoming](#) and [previous](#) FUPWG meetings.

Upcoming FUPWG Meetings

The next FUPWG meeting, which will be hosted by Sempra, will be held on October 14-15, 2004, in Downey, California.

The meeting will be held at Sempra's Energy Resource Center (ERC). A room block will be set up at the [Embassy Suites](#), which is located across the street from the ERC.

Registration for this meeting will begin in August.





What is O&M?

Effective O&M (Operations and Maintenance) is one of the most cost-effective methods for ensuring reliability, safety, and energy efficiency. Inadequate maintenance of energy-using systems is a major cause of energy waste in both the Federal government and the private sector. Energy losses from steam, water and air leaks, uninsulated lines, maladjusted or inoperable controls, and other losses from poor maintenance are often considerable. Good maintenance practices can generate substantial energy savings and should be considered a resource. Moreover, improvements to facility maintenance programs can often be accomplished immediately and at a relatively low cost.

Related Publications ::

- [Operations and Maintenance Best Practices Guide](#) is available as a PDF.
- [Continuous Commissioning Guidebook for Federal Energy Managers](#) is available as a PDF.

Advanced Metering ::

Advanced metering is an effective means to determine energy usage and measure savings. Learn more about [advanced metering](#) at federal sites and the metering provision in the 2003 comprehensive energy bill.



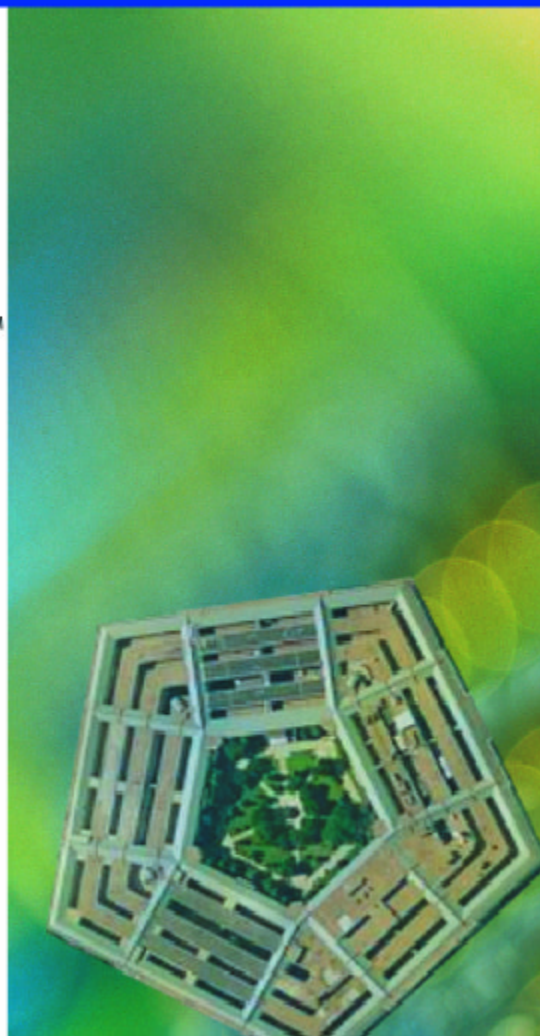
**MAXIMIZING
BUILDING ENERGY
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Continuous CommissioningSM Guidebook

**for
Federal Energy
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Office of Energy Efficiency
and Renewable Energy



FEDERAL ENERGY MANAGEMENT PROGRAM



Energy Security: What is it and why do we care?

- A measure of power reliability
- Bases and communities are vulnerable to terrorist attack or natural disasters
- Other critical infrastructures depend on energy
- New methods for insuring security are emerging



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August 8-11, 2004 Rochester, New York		Energy 2004	Seventh annual energy efficiency workshop and exposition for energy managers.	For conference attendance information, contact JoAnn Stirling , 1-800-395-8574. For marketing and advertising information, contact Jane Vander Linden , 703-921-1719. For exhibit details, contact Exhibits Promotions Plus, Inc. , 410-997-0763.
August 8, 2004 Rochester, New York		Distributed Generation and Combined Heat and Power Workshop		For information, contact Linda Stansberry , 865-574-0266. Register online.
August 15, 2004 Web Course		FEMP Lights On-Line Course		For more information on this 15-week,



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Overview

Through technology demonstrations and technical information materials, FEMP helps introduce new energy-efficient and renewable energy technologies into the Federal sector and beyond. These technologies can help agencies not only save energy and money, but also reduce pollution.

FEMP supports a limited number of technology demonstrations to provide independent performance data to Federal decision-makers and support timely Federal adoption of energy saving and environmentally beneficial technologies. A demonstration brings together a Federal host site, a technology manufacturer, a trade association, a local utility, and a national laboratory.

In these jointly funded, collaborative ventures, the Federal site provides on-site support for the technology evaluation, with the goal of reducing energy and operations and maintenance costs. The manufacturer donates equipment for evaluation, with the goal of establishing a Federal track record and improving technologies based on performance analysis. The local utility validates technology contributions and helps its Federal customer offset increasing capacity requirements. Trade associations disseminate results in order to promote new technologies, emphasize technology transfer, and communicate technology benefits to a wide audience. Finally, FEMP and its national laboratory experts provide technical staff to perform the analyses and prepare technical reports on the demonstrations.

FEMP relies on an interlaboratory council, made up of technical experts from four national laboratories ([Lawrence Berkeley National Laboratory](#), the [National Renewable Energy Laboratory](#), [Oak Ridge National Laboratory](#), and the [Pacific Northwest National Laboratory](#)) to undertake the technology demonstrations, evaluate data, and draft technical materials.

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[FEMP Industrial Facilities Assessment Provides Roadmap to Savings for DOE's Waste Isolation Pilot Plant](#)
November 11, 2003

[FEMP's Industrial Facilities Program: Helping Agencies Achieve EO 13123 Goals for Industrial Facilities](#)
August 1, 2002

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**Energy Management at
DOE Facilities**

Executive Orders, Legislation & Other Requirements

Federal agencies are required to meet a number of energy and water management goals, including the following:

- Reduce facility energy use per square foot by 30 percent in 2005 and 35 percent in 2010 relative to 1985 baseline
- Reduce industrial/laboratory energy by 20 percent in 2005 and 25 percent in 2010 relative to 1990 baseline
- Expand use of renewable energy, equivalent to 2.5% of Federal facility electricity consumption by 2005
- Install 20,000 solar energy systems by 2010
- Implement best management practices for water conservation in 80% of Federal facilities by 2010
- Reduce greenhouse gas emissions 30 percent by 2010 compared to 1990 baseline

To assist in meeting these goals, Federal agencies are called on to make use of a number of tools, including alternative financing; energy efficient purchasing; green power purchasing, among other activities that promote energy efficiency, renewable energy use, and water conservation.

Key rules, legislation, and other mandates, that outline these provisions and more, are featured below. Some of the following documents are available as Adobe Acrobat PDFs. [Download Acrobat Reader](#).



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Purchasing Renewable Power

Agencies can purchase renewable power or renewable energy certificates ("green tags") from a utility or other organization. By purchasing renewable power, your facility can obtain a percentage of its energy from renewable sources and meet the [federal renewable energy goal](#). Renewable power and renewable energy certificates can be good choices for facilities where on-site projects may be difficult or capital budgets are limited.

There are three different methods for purchasing renewable power:

- **Regulated Utility Green Pricing Programs**

Some utilities have voluntary programs that allow customers to sign up to purchase renewable energy. Federal agencies can participate in most of these programs, and competition is not required. To find out if your utility has a green pricing program, consult the [Green Pricing map](#) and the [Green Pricing spreadsheet](#) on the Green Power Network Web site.

- **Competitive Renewable Power**

In states with competitive electricity markets, Federal agencies can purchase renewable power through competitive electricity procurements. The [Green Marketing map](#) on the Green Power Network Web site shows states that have competitive renewable power product offerings. Both the [General Services Administration](#) and the [Defense Energy Support Center](#) can assist federal agencies with electricity procurements specifying a percentage of renewable power.



Purchasing electricity from wind resources is the most popular option for federal facilities to purchase renewable power.



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Wind Energy Slide Show



Warren Gretz/NREL/PIX01221

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The United States has abundant wind resources, and many federal facilities are in areas particularly suitable for tapping wind resources to generate electricity.

Both the Department of Energy and several state agencies have developed good wind [resource maps](#).

Opportunities in the Federal Sector

 [Printable Version](#)



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Overview

As the largest single "landlord" in the United States, the federal government oversees about 500,000 federal buildings. More than \$20 billion is spent annually on acquiring or substantially renovating federal facilities, more than \$3.5 billion for energy for these facilities, and almost \$200 billion for personnel compensation and benefits for civilian employees. This represents an enormous opportunity to transfer the sustainable technologies and practices on a large scale and help transform the marketplace. In addition, EO 13123 requires the federal agencies to apply sustainable design principles. With so much to gain in terms of energy, environmental, and economic benefits, it is not surprising that many federal agencies have developed policies to promote sustainable design and operation. In particular, federal policy calls on agencies to:



This national laboratory visitor center, designed with sustainable principles, uses passive solar energy for heating and cooling. (Warren Gretz, NREL/PIX05326)

- Maximize the potential of the site;
- Minimize the energy and resource consumption;
- Protect and conserve water;
- Use environmentally preferable products and materials;
- Enhance indoor environmental quality; and
- Optimize operational and maintenance practices.

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The EERE Information Center answers questions on EERE's products, services, and 11 technology programs, refers callers to the most appropriate EERE resources, and refers qualified callers to the appropriate expert networks.

Technical and programmatic information for the residential, commercial, institutional, industrial and transportation sectors is also immediately available through [The Energy Information Portal](#).

Other ways to find the information you need include:

- Visiting the [Energy Savers: A Consumer Guide to Energy Efficiency and Renewable Energy Web site](#)
- [Searching](#) EERE's Web site for online resources.
- Browsing [EERE's Consumer Fact Sheets](#)
- Browsing EERE's [Commercial/Institutional Resources](#)
- Reviewing EERE's [Industrial Information, Tools and Publications](#)

You may contact the EERE Information Center with questions on EERE's products, services, and 11 technology programs by calling 1-877-EERE-INF (1-877-337-3463) or by completing and submitting the form below. A customer service specialist or energy expert at the EERE Information Center will respond to your inquiry.

Fields with asterisks are required. Please note that we are only able to respond to inquiries from the United States.

First Name*:	<input type="text"/>	MI:	<input type="text"/>
Last Name*:	<input type="text"/>		
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